REMARKS

The above referenced patent application has been reviewed in light of the Office Action, dated May 06, 2003, in which:

- the drawings are objected to;
- mis-numbered claims 14-28 are renumbered to claims 16-30 under 37 C.F.R. § 1.126;
- claim 16 is rejected under 35 U.S.C. § 102(e) on Shukla (US Patent No. 6,345,101
 B1);
- claims 1-15 and 28-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wasilewski et al. (hereinafter 'Wasilewski;' US Patent No. 5,341,425) in combination with Richard et al. (hereinafter 'Richard;' US Patent No. 4,004,089);
- and claims 17-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shukla in combination with Richard

Reconsideration of the above referenced patent application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-15 and 17-30 are now pending the above referenced patent application. No claims have been added. Claim 16 has been cancelled. Claims 17-30 have been amended.

A Petition for Extension of Time in order to extend the period for response 3 month(s), including the appropriate fee, is filed herewith.

1 Drawings

The Examiner has objected to the drawings. The original drawings were submitted in an informal manner, which is no longer acceptable. New formal drawings were submitted in a separate filing on October, 06, 2003 and are believed to address the concerns listed in the document PTO-948. No new matter is added. It is respectfully requested that the Examiner withdraw the drawing objection(s). If the Examiner indicates his approval of these drawings, the above referenced patent application will be appropriately amended, if needed, to refer to them in the specification.

2 37 C.F.R. § 1.126

The Examiner has noted that the numbering of the claims was not in conformance with 37 C.F.R. § 1.126. Applicants original application contained an inadvertent typographical error misnumbering original claims 14-28. The Examiner has renumbered these claims 16-30, respectively. Applicants have amended the dependency numbering of claims 16-30 to reflect the original intent of the claims. No new matter has been added nor has the scope of these original claims been altered. These amendments respectfully asserted that these amendments are merely directed to matters of form, and, therefore, do not result in prosecution history estoppel and do not alter the scope of the claims.

3 35 U.S.C. § 102(e)

3.1 Shukla: Claim 16

The Examiner has rejected claim 16 under 35 U.S.C. § 102(e) as being anticipated by Shukla. This rejection by the Examiner of these claims is respectfully traversed.

It is well-established that in order to establish a *prima facie* case of anticipation under § 102 of the patent statute, the PTO must provide a single prior art document that alone has every element and every limitation of the claim being rejected. Therefore, if even a single element or limitation is not met by the asserted document, then the PTO has not succeeded in establishing a prima facie case.

It is respectfully asserted that the PTO has failed to this for a variety of reasons; however, in order to advance prosecution of the application, the rejected claims have been canceled.

4 35 U.S.C. § 103(a)

4.1 Wasilewski and Richard: Claims 1-15 and 28-30

The Examiner has also rejected claims 1-15 and 28-30 under 35 U.S.C. § 103(a) based upon Wasilewski in combination with Richard. The rejection of these claims is respectfully traversed.

M.P.E.P. § 706.02(j) sets forth the standard for a § 103(a) rejection:

To establish a prima facie case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (whitespace added).

Applicant begins with claim 1. Claim 1 recites:

(Original) An apparatus comprising:

at least one data bit generator to generate a first, second and third plurality of data bits; and

a combiner function, coupled to the at least one data bit generator, including a network of shuffle units, to combine the third plurality of data bits, using the first and second plurality of data bits as first input data bits and control signals respectively of the network of shuffle units.

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Applicant respectfully asserts that the combination set forth by the PTO fails to meet the requirement for a *prima facie* case for a § 103(a) rejection for at least the following reasons.

It is respectfully asserted that neither Wasilewski nor Richard, either alone or in combination, suggests or describes "using the first and second plurality of data bits as first input data bits and control signals respectively of the network of shuffle unit." The PTO asserts that the data stream 158 of Fig. 5 of Wasilewski teaches this limitation. However, it is respectfully asserted that Wasilewski does not teach using the outputs of encrypter 154 as control signals to combiner 156. Instead, Wasilewski teaches using the outputs of encrypter 154 as data input signals to combiner 156. Therefore, even if the combination were proper, although Applicants believe that it is not, nonetheless, the combination would still fail to produce the invention as recited in the rejected claims. It is, therefore, respectfully requested that the rejection of this claim be withdrawn.

Claims 2-15 and 28-30 either depend from and include the limitations of claim 1, or include a substantially similar and patentably distinct limitation as claim 1. Therefore, these claims patentably distinguish from the cited patents on the same basis as claim 1. It is, therefore, respectfully requested that the Examiner withdraw the rejections of claims 1-15 and 28-30.

4.2 Shukla and Richard: Claims 17-27

The Examiner has also rejected claims 17-27 under 35 U.S.C. § 103(a) on Shukla in combination with Richard. The rejection of these claims is also traversed.

M.P.E.P. § 706.02(j) sets forth the standard for a § 103(a) rejection:

To establish a prima facie case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPO2d 1438 (Fed. Cir. 1991) (whitespace added).

Applicant begins with claim 17. Claim 17, as amended, recites:

(Currently Amended) An apparatus comprising:

a first XOR gate to receive a first plurality of data bits and combine them into a second data bit:

a network of shuffle units, coupled to the first XOR gate, to output a third data bit by shuffling and propagating the second data bit through the network of shuffle units under the control of a fourth plurality of data bits; and

a second XOR gate coupled to the network of shuffle units to combine a fifth plurality of data bits using the third data bit;

wherein at least one of the shuffle units comprises a first and a second flip-flop to store a first and a second state value, and a plurality of selectors coupled to the first and second flip-flops to control selective output of one of the first and second state values based on a corresponding one of said fourth plurality of data bits.

Applicant respectfully asserts that the combination set forth by the PTO fails to meet the requirement for a *prima facie* case for a § 103(a) rejection for at least the following reasons.

It is respectfully asserted that neither Shukla nor Richard, either alone or in combination, suggests or describes "a plurality of selectors ... to control selective output ... based on a corresponding one of said fourth plurality of data bits." The PTO asserts that the selectors attached to elements 70, 71, 75, 72 of Fig. 2A of Richard teaches this limitation. However, it is respectfully asserted that Richard does not teach using the selectors controlled by "said fourth plurality of data bits." As an illustrative embodiment of Applicants disclosed subject matter, see page 14, lines 5 and 6, "[e]ach selector 814a, 814b, or 814c receives a corresponding one of the second group of LFSR outputs as a control signal." Instead, Richard teaches using the selectors controlled by a decrypt or encrypt bit. Therefore, even if the combination were proper, although Applicants believe that it is not, nonetheless, the combination would still fail to produce the invention as recited in the rejected claims. It is, therefore, respectfully requested that the rejection of this claim be withdrawn.

Claims 18-27 depend from and include the limitations of claim 17. Therefore, these claims patentably distinguish from the cited patents on the same basis as claim 17. It is, therefore, respectfully requested that the Examiner withdraw the rejections of claims 17-27.

CONCLUSION

In view of the foregoing, it is respectfully asserted that all claims pending in this application, as amended, are in condition for allowance. If the Examiner has any questions, they are invited to contact the undersigned at 503-264-6589. Reconsideration of this patent application and early allowance of all claims is respectfully requested.

Respectfully submitted,

Reg. No. 54,431

Dated:

10/25/2003

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